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Cooperative Extension Work in Agriculture and Home Economics  
United States Department of Agriculture and State  
Agricultural Colleges Cooperating

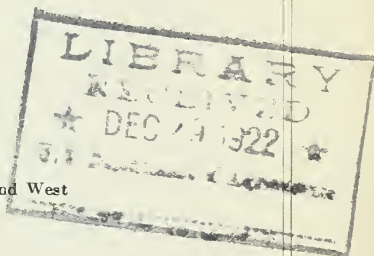
# STATUS AND RESULTS OF COUNTY AGENT WORK

NORTHERN AND WESTERN STATES

1921

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Office of Extension Work in the North and West  
States Relations Service



UNITED STATES DEPARTMENT OF AGRICULTURE  
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THIS CIRCULAR is the last of a series of reports of this kind on Status and Results of County Agent Work in the Northern and Western States. With the union of the Office of Extension Work in the North and West and the Office of Extension Work in the South the work will in the future be given national rather than regional consideration. This and the preceding circulars of the series show the progress and some of the results obtained during the important period of development when the work was being extended into the counties and its ideals and policies crystallized. Its progress has been rapid and yet upon a basis that appears to be fundamentally sound. There is no question but that it will endure as a very important part of the unified extension organization and program, wherein the farm and the farm home are taken as a unit and the needs of the entire community are considered.

C. B. SMITH,  
*Chief, Office of Extension Work.*

# COUNTY AGENT WORK IN THE NORTHERN AND WESTERN STATES, 1921.

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County agent work in the Northern and Western States is still advancing. There is a larger number of county agents employed than at any previous period. The rate of increase, as shown in Figure 1, is slowing down, but even during such a period of agricultural depression and general business instability and uncertainty as the past year, there was a gain. In 7 of the 33 Northern and Western States there was a net loss of 16. This was overcome by a gain of 37 in 12 States. In the remaining 14 States the work remained stationary.

## INFLUENCES AFFECTING EXPANSION.

The county agent work made a conservative and uniform growth from 1913 to 1917 of about 100 new counties each year. Then came the artificial stimulation of the large appropriation authorized by the war emergency act, which provided for national security and defense by stimulating agriculture and facilitating the distribution of agriculture products. In a period of about 10 months during 1918, 544 agents were appointed. The conclusion of the war so soon after the appointment of this large additional force and the withdrawal of more than a million dollars of Federal support, brought a real crisis in the development of the work. A considerable loss of agents was commonly forecasted. Farmers rallied to the support of the work, however, in these new counties in a most surprising way. Agricultural colleges sacrificed some other lines of work in order to retain contact with the county. Instead of a loss, there was an increase of 29 agents the first year after the war. This increase continued

in the fiscal year 1921, when 78 additional agents took up the work. During the current year 32 counties not before having agents have taken up the work and the net gain has been 26 agents up to February 1, 1922. The table below shows the gain by years since the work began.

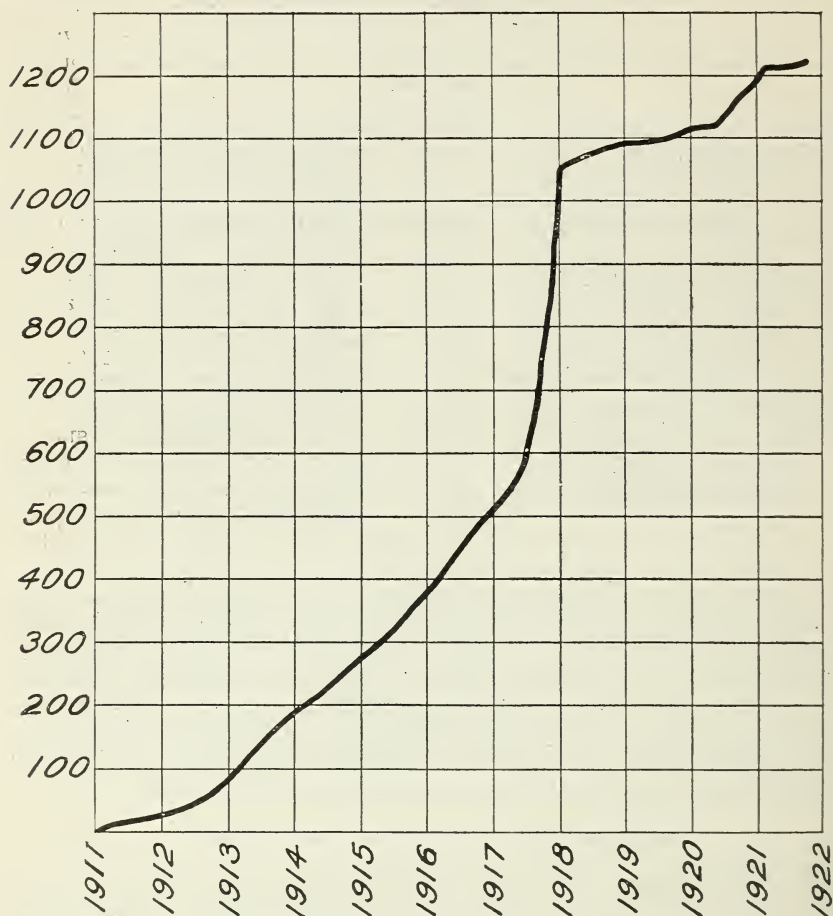


FIG. 1.—Growth of county agent work in the Northern and Western States, 1911–1922. The curve indicates the number of county agents June 30 each year.

*Development of county agent work.*

Fiscal year.	New counties provided with agents.	Total counties with agents.	Net increase.	Fiscal year.	New counties provided with agents.	Total counties with agents.	Net increase.
1910–11.....	2	2	.....	1916–17.....	137	542	123
1911–12.....	15	17	15	1917–18.....	486	1,086	544
1912–13.....	108	114	97	1918–19.....	92	1,106	20
1913–14.....	105	209	95	1919–20.....	75	1,135	29
1914–15.....	127	298	89	1920–21.....	58	1,213	78
1915–16.....	117	419	121	1921–22.....	32	1,239	26

<sup>1</sup> To Feb. 1, 1922.



During the current year further expansion has had to meet the full force of the tax-reduction campaigns, and these campaigns have caused a small decrease of the number of county agents in several States. While it is probable that an agent should and can be of greater service to farmers during "hard times" than when conditions are favorable, county commissioners are not always influenced by such considerations, and the farmer's ability to contribute toward the support individually or through his organizations is of course greatly limited. That county agent work has gained the confidence of farmers and is secure in public support is strongly indicated by the results of the special election held in North Dakota during the fall of 1921. A North Dakota law provides that the question of employing agents may be submitted to the people for a vote whenever 10 per cent of the people of a county petition the county commissioners for such a vote. Although the commissioners had never been so petitioned, they took it upon themselves to refer the question back to the taxpayers in 11 counties, and all of them voted in favor of continuation of the work by majorities of  $1\frac{1}{2}$  to 1 up to nearly 4 to 1. Thus, despite stringent financial conditions and a strong sentiment for lower taxes, the question of employing county agents was decided favorably by substantial majorities.

During the year the work also met its first organized opposition from commercial interests, which it will be remembered were among the first and most liberal supporters of the movement. The immediate future growth of county agent work is in part dependent upon the rapidity of agricultural recovery and a better understanding by urban interests of the county agent's proper field of activities.

About 80 per cent of the agricultural counties in the North and West are now reached by a resident agent, and these counties contain 77 per cent of the total number of farms of the 33 States according to the 1920 census. It would seem, therefore, that, at least from the standpoint of number of farms, the average county without an agent is relatively as important as those with agents, and that the work should go on to rapid completion, or at least go forward at the rate maintained before the war. The diagram (Fig. 2) shows the percentage of farmers in the various States to which the services of an agent are now available. Of the 377 counties at present without the services of an agent, 208 have at some time during the past seven years had a resident agent and the work has been discontinued for periods varying from a few weeks to three or more years. This leaves only 169 counties in the Northern and Western States which have never had the services of an agent.

#### COUNTY EXTENSION SERVICE.

During the year there has come into use a new name for the county organization for extension work, namely, the county extension service (Fig. 3), signifying substantially the same thing as did the term "farm bureau association," as that organization was originally conceived. A change in name had become necessary because the farm bureau must now be considered a private organization of farmers with a wider field of activity than that of advancing and cooperating in extension work, for which it was originally organized, and

the popular conception of the meaning of the term "farm bureau" has materially changed. This change is quite as evident in the 18 States in which the farm bureau is definitely recognized by law as the legal cooperating extension agency in the counties as in the States where the relationship has been on a purely voluntary basis. These State laws were a part of a movement looking to the creation

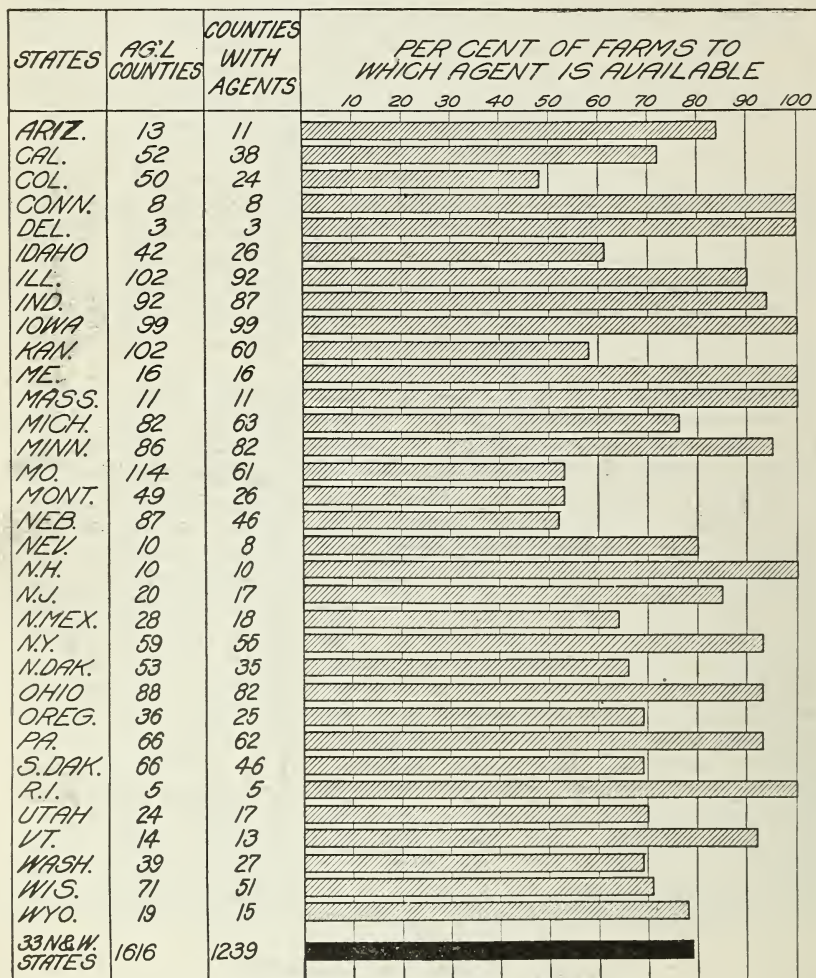


FIG. 2.—Percentages of farms in the Northern and Western States to which services of county agents were available in 1921.

of a definite, official public body in every county for cooperating in extension work. They were enacted under one set of conditions and in pursuance of one set of ideals which the evolution of the farm bureau as a national private organization of farmers with a broad legislative and business program, aggressive leadership, and intensive membership campaigns has materially changed. These new conditions and relationships gradually became apparent in the year



following the organization of the American Farm Bureau Federation.

In order to clarify misunderstanding on the part of the public and orient county agents and other extension workers in their new relationships, a memorandum of understanding was entered into between the Director of the States Relations Service and the executive committee of the American Farm Bureau Federation which provides, among other things, that:

In order to do away so far as possible with the confusion now existing in the public mind regarding the organization and work of the farm bureau as related to the county agents and the extension service generally, it is recommended



FIG. 3.—Personnel of a county extension service: County agent, home demonstration agent, club leader, and stenographer.

that hereafter, in publications and otherwise, cooperative extension service shall be differentiated from the "farm bureau work." That is, the farm bureau will have its relations with the extension service (consisting of the county agents, extension committees, demonstrations, etc.) as one of its departments. Another department might be a publicity department which would prepare and publish a periodical "farm bureau news," press articles, and announcements of meetings, etc., department of relations with marketing and other associations, etc. The work which centers in the county agents would be designated as "cooperative extension service" and the miscellaneous enterprises of the farm bureau as "farm bureau work."

This memorandum will be found in full on pages 41, 42. The memorandum was submitted to the States and met with almost universally favorable response. Several States specifically adopted it in cooperation with the State farm bureau, and other States began op-

erating under it without official action. It is one of the most important happenings of the year, and its influence on the public mind, the farm bureau, membership in the other farmers' organizations, and the county agents and extension officials has been clarifying and helpful. The observance of its provisions will go far toward correcting in the future the misunderstanding of the past two years. With the new farm bureau differentiated from the cooperative extension service, the relations of the county agent to the farm bureau organization become simple. He deals with it as with other farmers' organizations through such special extension or project committees as it may provide for the better carrying out of extension effort. His relation to these committees is in the development and execution of a program of extension work, approved by and carried on in cooperation with the State agricultural college. The farm bureau is free to carry on its work through its own officials and employees, and for this the county agent as a part of the extension service is in no way responsible. The county agent's position as a public official is clearly recognized in the memorandum, and a basis for free and effective cooperation has been laid. In States where the county farm bureau is by law made a cooperating extension agency with prescribed duties and definite relationship, a confused situation exists which may require clarifying legislation to correct. Even under these conditions, however, the observance of the spirit of the memorandum should be most helpful.

#### THE COUNTY AGENT'S PLACE IN THE EXTENSION ORGANIZATION.

In a previous report on county agent work<sup>1</sup> it is stated:

He (the county agent) thus is in a sense a county agricultural extension director whose authority, though limited by contract and memorandum, is recognized as establishing his leadership; and whose duties, though restricted by written projects, involve his interest in all that makes for the advancement of economic and social life among rural people.

More and more as extension work has developed in the counties the agent has had to assume administrative leadership in extension work. In some States, like California, this leadership has been officially recognized from the beginning. With the appointment of additional resident county workers in various lines, this problem became one of some difficulty. It was met in some States, as in Washington State, by the definite official appointment of the county agent as a "deputy county extension director," responsible to the State extension director for administrative duties and to the county agent leader for methods of work. In other States extension committees were created composed of various workers with the county agent usually as chairman. Rapid development along this line has been made in the past two years, so that in most States in the North and West the county agent has arrived at the position prescribed for him in 1916. He is the point of contact for the extension director in all administrative matters within the county relating to extension work, and deals with county boards relative to the budget for the whole extension

<sup>1</sup> U. S. Dept. Agr., States Relations Service Doc. 60, County Agricultural Agent Work in the Northern and Western States, 1916, p. 2.



service. He does not "supervise" other agents in the county, but acts as a leader in securing proper coordination and unity of program. The institutional specialists present their plans for agricultural improvement and extension to the farmers through him as representative of the extension service.

#### COUNTY EXTENSION NEWS.

In order to give as wide publicity as possible to the results of demonstrations many of the early county agents sent out circular letters calling attention to these demonstrations in a timely way. From this there developed a mimeographed sheet issued at regular intervals, usually monthly, calculated to keep the cooperating farmers informed generally in regard to extension activities in the county. About 1917 some county agents began issuing a printed paper which was styled a "Farm Bureau News." The expense incident to issuing this periodical was met by a small subscription price and in some cases by local advertising. At the outset the papers were strictly house organs of the extension work conducted in the county, which was then commonly referred to as "farm bureau work." As the years have gone by these papers have become numerous and more ambitious, entering somewhat into the domain of the local newspaper on the one hand and the agricultural journal on the other. As a rule the name of the county agent has appeared as editor, and he has been charged with most of the duties of an editor and business manager in getting out the paper. Some years ago the Post Office Department ruled that such publications were not mailable by county agents in Federal penalty envelopes, even though the county agent was a Federal employee. With the county farm bureau's changing character, the county agent's relation to this publication has also necessarily changed. This is recognized in the memorandum of understanding between the States Relations Service and the American Farm Bureau Federation. It is now recommended that the county agent maintain the same attitude toward the Farm Bureau News as he does toward other vehicles of publicity in the county. He will contribute to it articles relating to the extension projects, community programs, and demonstration work, but will not be responsible for its publication, policy, or business management. The number of counties publishing county farm bureau news gradually increased up to 1920, when there were 730 such publications, but decreased in 1921 to 698. In a few cases an "extension news" is taking the place of the former "farm bureau news." There is a marked tendency toward returning to the earlier simple and more direct system of a news letter and a wider use of the local press.

#### A STATE PROGRAM IN AGRICULTURE.

There is gradually developing in some of the States a definite plan or agricultural program of work looking toward the future and having in mind a permanent agriculture based on the character of the population, soil, climate, labor distribution, and marketing condi-

tions. The need of such a program has been long recognized and its absence lamented as the chief limiting factor in the effectiveness of extension work. Such a program requires painstaking study and careful elaboration, and but few institutions have possessed either money or facilities to undertake such work. The developing of farm management and farm economics departments in the colleges will make the working out of such programs possible. No extension program can be assuredly sound that is not based on such a study and analysis of fundamental agricultural conditions, with rather a clear vision of future probabilities.

The emphasis that has been placed on extension programs may be misapplied if the basic agricultural program is not carefully thought out and the extension services of the colleges and department organized to meet these conditions. This is a matter which the county agents have to consider with the farmers in developing a county and community program of work, and the questions raised by them have served to give renewed emphasis to the need of State programs in agricultural improvement. Such State plans as have been developed in the past two years have for the most part been a combination and elaboration of the county programs worked out by county agents in cooperation with farmers' committees, and these county plans will go far in helping to supply the raw materials for the complete working out of a permanent State plan of work. The analysis of county extension programs in relation to agricultural statistics is calling attention to deficiencies or wrong emphasis, and so making for sounder county programs based on real rather than apparent agricultural needs.

#### PROGRAM DEVELOPMENT AND ANALYSIS.

During the year a study was made of methods of developing county and community programs of extension work based on the so-called "self development" and "sources of income" methods referred to in a previous report.<sup>2</sup> A report of this study was presented at the 1921 meeting of Association of Land Grant Colleges and appears in the proceedings of the association for that year. Its general conclusions may be summarized as follows:

(1) It seems established that for most conditions the farm community is the most desirable unit for the development of a program in extension work.

(2) There should be a definite State program worked out in the agricultural college which will attempt to take a long look ahead and attack the more fundamental problems, this program to be carefully elaborated and to be based on the research teaching of the experiment stations and the Federal Department of Agriculture. It will consider agriculture in its relations to other industries, and its evolution as a business as well as a life. It will counsel with county agents and representative farmers in regard to acute present problems and analyze and correlate the county and community programs; and in light of this, shape its State campaigns from year to year to give special emphasis to a few of the more pressing needs, keeping in mind the gradual carrying forward of the whole program.

(3) A community program can best be built from the bottom up, considering in the first instance the farmer's own conception of his problems.

<sup>2</sup> U. S. Dept. Agr. Circ. 179, Status and Results of County Agent Work, Northern and Western States, 1920.



(4) The best expression of the farm home and community problems is secured through an informal conference of the county agent with a few carefully chosen individuals in the home of one of those participating.

(5) The county agent should precede any attempt in program making by a careful study of the community, the character of its people, their comparative possibilities, land ownership, agricultural statistics, community spirit, local prejudices, etc. He should be familiar with the State program of work, know what specialist assistance is available from the State college and the United States Department of Agriculture, and how to suggest possible remedies as the community develops its needs.

(6) "Sources of income" is a valuable but not sufficiently comprehensive basis for program making. The program outlined should be broad enough to draw out any important home, farm, or community problem.

(7) The chief difficulty in community program making is not in the farmer's diffidence, individualism, or lack of conception, but in the lack of teaching ability on the part of the county agent; failure to get fairly satisfactory programs is not an indication of the farmer's ignorance, but of our own.

(8) The county agent's chief need at the present time is careful training in methods of program making, follow-up, demonstration methods, human psychology, and business sense. It is the chief function of the county agent leader, assistant leaders, and district agents to furnish this training, through assisting the county agent in the actual making of community programs in one or two demonstration communities.

(9) The program is for the whole community, men, women, boys, and girls. The farm business and home life is inextricably interwoven; the farmer and the home maker participate together in the development of common projects, worked out and executed separately or together as may best advance the particular project.

(10) The community will be properly interested in matters other than those within the province of extension work in agriculture and home economics; a community program may include (a) work in which the extension office and the community will cooperate, (b) work which the community will carry on for itself or in cooperation with other agencies, and, though rarely, (c) work which the extension service will undertake by itself. Effective teamwork is not inconsistent with self-respecting independence.

(11) Farm organizations within the community should lend their machinery in carrying out the program. The program where possible should be so constructed as to vitalize the work of these organizations. The program, however, is for the people of the community, not for the organization.

(12) In extension work leadership is vital; the development of rural leadership is fundamental to permanent progress; education and culture and polish are not necessarily attributes of leadership; this quality is met with quite as frequently in overalls as in dress suits; leadership comes from responsibility and accumulates self-confidence through experience; farmers are as quick to respond to this as are other people.

(13) Follow-up in program making is necessary. The county agent in his project leads a group of what old schoolmasters used to call "select scholars." Time spent with a community program leader will vastly multiply the influence of the extension service.

(14) Programs should be possible, not perfect. Keeping in mind the ideal, the focus should be on the real. The lazy community will need "pepping up" and the ambitious community "toning down." Goals in extension work are desirable. They should be high enough to stimulate ambition and yet not so high as to kill enthusiasm through failure.

The table following shows an elaboration of the "sources of income" method of analysis designed to overcome such shortcomings as its use in the field has developed, and yet to retain the proven advantages of the sound idea of basing extension program on a system of profitable agriculture.

*Community analysis as a basis for community program planning for extension work and for other community effort.*

	Difficulties.	Remedies.	Goal.	Leader.
<b>FARM PROBLEMS.</b>				
<i>Sources of income:</i>				
Present—				
Livestock—	Low producing cows.	Cow-testing association.	1 test association..	John Doe.
Dairy.....	Scrub bulls.....	Purebred bulls...	4 Guernsey bulls..	Richard Doe.
	Low price of milk..	Organization of producers.	1 dairy association.	James Doe.
	Lack of interest in purebreds.	Calf club.....	10 in club.....	Richard Doe.
Poultry, etc.....				
Crops—	Low yield.....	Soilimprovement.	2 fertilizer and manure demonstration.	Adam Doe.
Corn.....	Late maturity....	Variety test.....	1 variety demonstration.	Henry Doe.
Possible—				
Sugar beets.....	No knowledge of crop.	Trial field.....	1 acre demonstration.	Will Doe.
<i>Farm management.</i>				
Cost of production and enterprise profits, etc.	Lack of data.....	Records.....	4 corn records..... 6 dairy records....	Aaron Doe. Theodore Doe
<b>HOME PROBLEMS.</b>				
<i>Food—</i>				
Canning.....	Lack of vegetables for winter use.	Home canning....	3 canning demonstrations.	Alice Doe.
Asparagus, etc.....	None grown.....	Canning club.....	12 members in club.	Rachael Doe.
Clothing, e. c.....		Garden tests.....	6 demonstrations..	
<i>Shelter—</i>				
Home planning, etc.....				
<b>COMMUNITY PROBLEMS.</b>				
Roads, etc.....				
School, etc.....				
Transportation, etc.....	Poor railroad schedules.	Arrangement with railroad officials.	7.40 a. m. train to stop at junction.	Edward Doe.
Labor, etc.....				

There was gratifying progress in the development of community consciousness and community self help during 1921. The number of communities recognized for extension work increased from 16,920 at the end of 1920 to 17,972 at the end of 1921, the number of community committees from 11,561 to 13,918, and the total committeemen involved from 55,593 to 66,119. That their extension committees are not merely nominal or "paper" committees, but that they are seriously considering their work, is clearly indicated by the increased number of meetings and attendance. The number of community committee meetings increased 4,137 and the attendance at the meetings 33,479. There was an average attendance of 7 members at each meeting. In all, 778 county agents made use of community committees, which in an average county held 17 meetings during the year. A total of 53,679 community meetings, with an attendance of 2,182,000 people, were held in 1921, at which the extension work was explained.

Since 1917 county project committees have been a developing phase of county extension organization. In 1921, 677 county agents made use of such committees as compared with 513 in 1920. The number of such project committee meetings increased from 4,475 to 7,329. The interest of farmers in these county meetings of the various community project chairmen is indicated by a total attendance of 117,538, or an average of 16 per meeting. When this idea was first suggested in 1917, it was commonly thought that it would have very slow development, as farmers would not travel long distances to attend a

committee meeting. The rapid development and apparent success of these project committee meetings is a fine commentary on the farmer's interest in his business and willingness to consider the work of these committees as a part of his business.

Analysis of county and community programs in midseason, as a means of checking up on progress, has been systematized and has proven of great help to county agents and county agent leaders. Where the program has been worked out on a "goal" basis the analysis can be made easily and quickly, and field workers report the percentage of accomplishment has been increased from 10 to 30 by such analyses. Such analyses also tend to show the weak spots in program development. The following comment of County Agent Leader Owens of Utah is typical of the attitude of leaders generally toward the method of program analysis:

The analyses show up several weak points which we had not been fully aware of. Too much time had been spent on crop pests as mere service work. The educational phase of this work had been existent in demonstration since the work began in Utah. Some of the most valuable industries, such as sheep husbandry, were entirely neglected. The general distribution of project work did not balance at all with the relative importance of the various industries, partly due to the fact that people had been given little guidance in the selection of their project work, selecting that which gave immediate results. In soils and seed work, dairying, and landscape gardening, where we did have specialists, results were evident as compared with what we knew to be conditions before. These analyses have been of inestimable value to us as a basis for effecting some needed reorganization with a corresponding increased use of specialists and in modifying our methods of selecting a program of work and development of the program in agriculture for 1922.

### DEMONSTRATIONS.

The basic philosophy of extension work as conceived by the Smith-Lever Act is that of a local or resident representative of the State college and the United States Department of Agriculture, who demonstrates by example rather than by precept the better methods which experiment had proven to be advantageous. In the early days of county agent work this idea was rather closely adhered to, but as the work progressed emphasis was often placed on the organization or machinery which was to do the work rather than on the work itself. At times there may have been even an over-refinement of organization, to such an extent that the extension work was thought of as something to keep the organization busy or alive rather than that the work to be done was the important thing, and the organization only a means to that end. The mill at times appeared to be more important than the grist. This and the interposition of the war with its multitude of emergency projects tended to momentarily obscure the original basis of county agent work and magnify organization work and campaign methods.

In a previous report on the county agent work<sup>3</sup> the great falling off of definite demonstration work was pointed out. The average demonstrations per county agent dropped from 82 in 1919 to 47 in 1920, with a proportionate decrease in the number of demonstration meetings and attendance.

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<sup>3</sup> U. S. Dept. Agr. Circ. 179.



A definite effort was made during 1921 in most of the States to correct this tendency and the average was restored, as shown in the table below to 75 demonstrations per agent for the past year, which is above the six years' average.

*Average number of demonstrations per agent, 1919-1921.*

	Six-year average.	1919	1920	1921
Number of demonstrations.....	70	82	47	75
Number of demonstration meetings.....	35	50	31	48
Attendance at demonstration meetings.....	737	753	586	1,102

This increase in demonstrations is of special significance because experience indicates that properly located demonstrations (Fig. 4), with intensive advertising and follow-up, are much more effective in reaching farmers than personal visits.

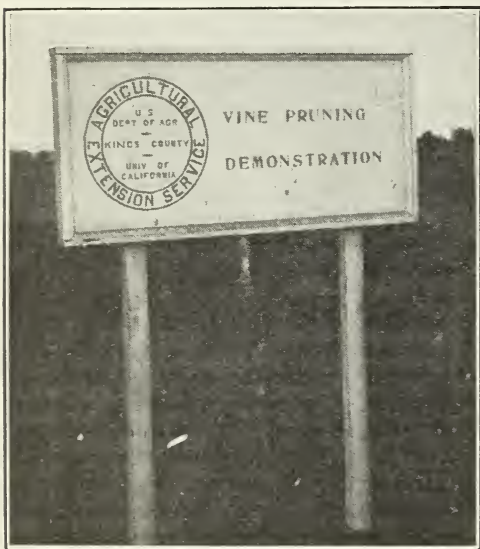


FIG. 4.—A demonstration sign.

A special investigation involving one county in New York indicates that a demonstration does not attract attention to any marked degree beyond a radius of  $2\frac{1}{2}$  miles surrounding it. While these records have been obtained over a period of years, they apply specifically to conditions in New York or where the density of population and road conditions are approximately the same, and will not necessarily be applicable to middle western or western conditions.

It is important, however, that county agents should give this matter careful consideration in locating demonstrations, so that all of the farmers will be within the area of influence of some demonstration.

#### FARM VISITS AND OFFICE CALLS.

In a preceding paragraph the relation of farm visits (Fig. 5) to demonstrations has been shown. In the table following is shown a comparison of farm visits and office calls by years since 1915.



*Farm visits and office calls, 1915-1921.*

Year.	Average number of farms visited.	Average number of farm visits made.	Average number of office calls.	Year.	Average number of farms visited.	Average number of farm visits made.	Average number of office calls.
1915.....	307	550	844	1919.....	284	450	1,233
1916.....	313	497	600	1920.....	283	410	1,205
1917.....	287	457	770	1921.....	283	490	1,482
1918.....	264	436	1,100	7-year average.....	289	470	1,033

While the number of farms visited has remained practically stationary over a period of five years, there has been a large increase in the number of office calls, and the maximum has apparently

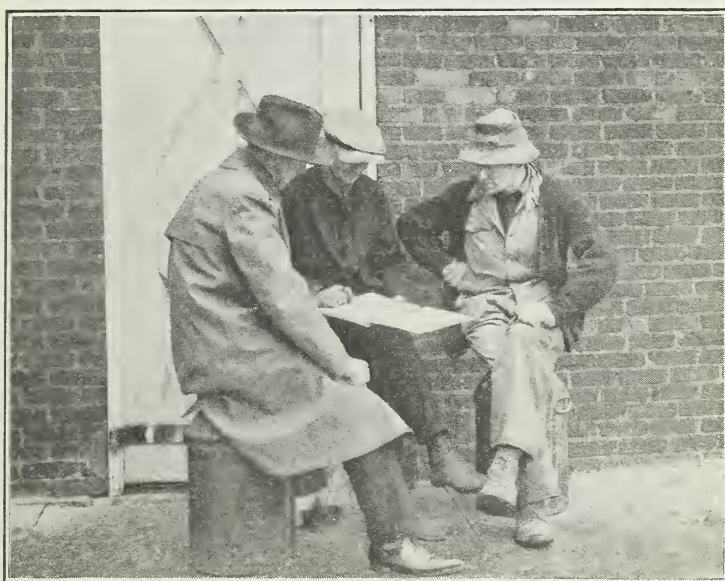


FIG. 5.—A farm visit : Talking over the dairy records.

not yet been reached. When the number of farm visits and office calls are compared with the days spent in the field and days spent in office work it is found that in 1915 the average agent received five office calls per day. This had increased to 9 calls per day in 1920 and to 13 calls per day in 1921. In 1915 the average number of farm visits per day of field work was 3.7. The average for 1920 was 2.4 and for 1921, 2.5.

In this connection the time spent in the field and in the office is an important consideration. In 1915 the average county agent spent 152 days in the field and 140 days in the office. In 1920 he spent 165 days in the field and 115 in the office, and in 1921, 193 in the field and 110 in the office. It seems that in spite of increased office duties as the work has developed the agents are spending more time in field work and are accomplishing more office work in less

days. This is made possible by more efficient office methods and clerical assistance. About 85 per cent of the county agents in the North and West have clerical assistance either part or full time. Such assistance was practically unknown in 1915.

During the past three years the office and field records and filing systems for county agents have been given much attention, so that better business methods are being followed, field records and notes classified and preserved, and the county extension office systematized and standardized.<sup>4</sup> So important has been the matter of keeping and preserving accurate records of county agent work and the efficient use of available clerical assistance that in several States group conferences of the county agents, clerks, or stenographers are being

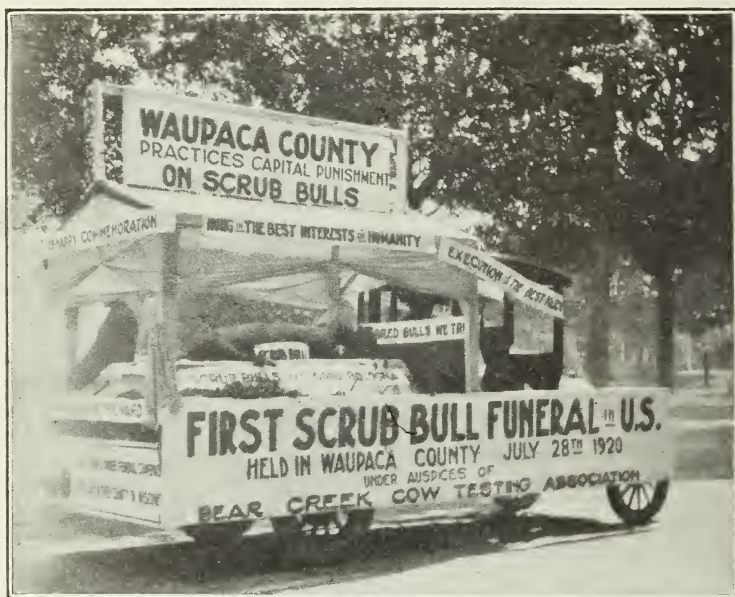


FIG. 6.—A float in the parade celebrating the inauguration of county agent work in Wisconsin.

held and efficiency methods studied. Some of these conferences have been held in connection with the district conferences of county agents.

#### CELEBRATION OF THE INAUGURATION OF COUNTY AGENT WORK.

During 1921 two States, New York and Wisconsin, celebrated the completion of the first decade of county agent work in these States. Broome County, N. Y., began county agent work in March, 1911, and Oneida County, Wis., in February, 1912. In the latter county a county appropriation of funds was made in August, 1911, and the celebration was held as commemorative of the first county in the North and West to make an appropriation of public funds for exten-

<sup>4</sup> U. S. Dept. Agr. Circ. 107, A System of Field and Office Records for County Extension Workers.



sion work (Fig. 6). Other States held similar celebrations during 1922, notably Illinois, which in May completed the first decade in two counties, DeKalb and Kankakee. DeKalb County has the distinction of being the first county in the United States to effect a definite organization of farmers for cooperation in extension work; while in Kankakee County John Collier has served continuously as county agent for the entire 10-year period, which is the longest period of service of any of the agents in the North and West.

#### MAINTENANCE OF PERSONNEL.

In the past there has been a heavy turnover of county agent positions. The average period of service covering the period from 1911 to 1919 had been about two years. The resignations were especially heavy during the year following the war, and the replacement problem was a difficult one. The past year has shown a marked improvement in this matter. The percentage of resignations to total appointments, with the number of agents at work remaining almost stationary, decreased 17 per cent over 1919 and 10 per cent over 1920. This is due, it is believed, to three causes:

(1) A better stabilization of the work itself and consequently more complete confidence in its permanency on the part of those engaged in it, thereby promoting a feeling of security on the part of the agent if he does good work.

(2) The competition of the farm and other business activities for the services of an ambitious, industrious man under present conditions has been greatly reduced.

(3) Salaries for county agents have gradually increased at the rate of about \$200 per year since 1911, the average for 1921-2 being about \$2,700. This has quieted much discontent that existed in the earlier years of the work. Under the pressure of present agricultural and commercial depression salaries are now showing a downward trend, which may, if continued, operate to retard or stop the gratifying tendency toward a longer period of service.

#### COLLEGE TRAINING FOR EXTENSION WORK.

In all of the Northern and Western States it has been the practice to employ only men who have had the full four-year course at an agricultural college for positions as county agents. It seems this is a reasonable requirement if a county agent is to represent the college in the county and help farmers interpret and apply the results of agricultural research. It has been found, however, that, valuable as a thorough training in agricultural science may be, it still leaves the new agent rather poorly prepared for his work. Particularly is this so when he is to take up work in a county that for some time has been served by a successful agent. His college work has given him a valuable amount of subject-matter information relating to agriculture, but little or nothing in regard to extension organization, policy, and methods. He is much like a person in possession of a fine set of tools but with scant knowledge as to how to use them.

In the early days of the work there were no rules to go by and county agents had to find their way as best they could. The ex-

perience of 10 years has developed a considerable amount of approved methods in organization and work, and settled many questions of policy in administration and supervision. The new agent should have some familiarity with the matters of legislation, policy, administration, supervision, organization, and methods before taking up the work in the county if he is to achieve his quickest and largest success. Observation in the field leads to the belief that from 6 to 9 months are practically lost when there is a change of agents in a county, due in a large measure to the new county agent not knowing how to go about doing the work. Not only must he make contact with his clientele among the farmers, but before he can use the existing extension organization he must be familiar with the institutional relations, policies, and methods of carrying forward the extension work under way.

The agricultural colleges have not in the past given special attention to training students for extension work. Their courses were formulated before this new profession was in existence. There are now about 4,500 persons engaged in extension work in agriculture and home economics in the United States. Based on a survey of the county agent work in the North and West, there is a turnover of about one-fourth each year, or, on this basis, approximately 1,000 new people take up extension work each year to replace those leaving. This does not include the constant expansion of personnel that has been going on in the past years. It was with a view to providing these people with some training for their future work that the agitation for special extension courses in the State colleges had its origin.

Special committees of nine county agent leaders were appointed at the Regional County Agent Leader Conference at New York City in 1920 to canvass the county agents and submit recommendations in regard to the placing of courses for extension workers in the college curriculum. Out of 1,100 county agents 790 responded, showing a deep interest in the movement. Of these, 609 thought special undergraduate courses should be provided for those looking to take up county agent work, and 133 thought that the special training should come as a part of the postgraduate work. Only 19 of those answering thought no special training in addition to that already being given was necessary; 606 thought the land-grant college should establish a special extension department with an extension professorship. The subjects which the replies indicated might be included in such a course were: Extension history, administration, organization, and policy, public speaking, journalism, psychology, rural economics, rural sociology, salesmanship, advertising, agricultural law, and English. These subjects probably indicate the phases of the county agent's own undergraduate work which he had found in his experience as agent to be deficient. A large number, 574, thought agricultural economics, including marketing, should be given greater emphasis in the undergraduate courses. California, Oregon, New York, and Wisconsin have established such courses and other States are considering the early establishment of such courses. Many of the county agents believe that along with the classroom teaching at the college should be some opportunity to do field or laboratory work as an assistant county agent for a brief period.



## STATE SUPERVISORY PROGRAM.

During the period of development of county agent work in the Northern and Western States, from 1911 to 1922, while the plan was being presented to and accepted by the farmers, the promoting agency has chiefly rested with the State county agent leaders, reinforced by the county agent section of the Washington office, North and West, of the United States Department of Agriculture. During much of this time State and national leaders have hardly been supervisors in the true meaning of the term. They were first of all propagandists—working chiefly in counties without agents, presenting the idea to the farmers and county commissioners, effecting preliminary organization of the people, not so much as an extension organization as a means of crystallizing public sentiment in favor of the movement, and helping and securing grants of county public funds. For several years such work consumed most of the time of the State leaders. Whatever State supervisory work was done was largely of a perfunctory character, such as receiving and transmitting reports and giving county agents general encouragement. Following this came a few years of intensification of county extension organization, during which the county agent leaders became in a sense organization specialists. Gradually the emphasis shifted from that of spreading the work and creating the mere machinery of organization to putting the organization to work, or developing a county program. Of course, all of these functions were exercised in one way or another at the same time, but broadly speaking, the development was as indicated. The program-of-work idea did not begin to gather force until about 1918, and although the idea is now generally accepted, it is still possibly in the promotion stage, as will be shown later. All of these activities called for an immense amount of work on the part of the county agent leaders. There are few, if any, educational movements that offer a parallel to the rapid, complete, orderly, and apparently permanent development that has characterized the progress of county agent work in the Northern and Western States.

With the approaching close of the period of development it came to be asked seriously, "What of the future?" "Why is a county agent leader?" Two years ago, in 1919, an attempt was made to analyze the duties of a county agent leader. The attempt disclosed a contrast between the old order and the new. At that time more than 70 per cent of the State leader's time had to be classified as miscellaneous. He had no program of work for himself. "Visiting the agent" was often without definite purpose and perhaps somewhat barren of tangible results. The county agent leader had not yet developed as a supervisor. A serious question was, "Is there a field for county agent leadership?" and a serious attempt was made to diagram it. In doing this the same methods were followed as had proven successful in helping the county agent find himself through an analysis of community programs. The county agent leader studied each county from the standpoint of what the best interests of the work required in that county. After such a study problems were grouped, as, so many counties needing help in office records and reports, so many needing better finances, so many needing help in program development, where further promotion work

was needed, where studies and surveys would be helpful, etc. Having analyzed his job, the county agent leader developed a program with goals of what he expected to do during the year and a calendar of visits, and the county agents were informed not only when to expect visits but as to the purpose of the visit. Organized supervision may be said to have gotten under way during 1920. The results have been satisfactory. Not only have the county agent leaders found a large order waiting for them, but they also found willing customers. The county agents wanted and welcomed real help. The county agent leader's program or plan for 1921 was clear-cut and specific and for the 33 States there was better than 80 per cent completion of the work planned. Several leaders went over the top and did more than they planned. The satisfactory condition of county agent work in the North and West during the period of depression is in no small measure due to real, purposeful leadership with vision and plan to make the dream come true. In 1921 the average county agent leader (including the assistant leaders) spent 138 days in the field and 134 days in the office. He made 97 visits to the county agents and reached 28 different counties, or not quite 4 visits per county of about  $1\frac{1}{2}$  days each. This does not include the time spent in travel. An analysis of his report based on what he actually did discloses that program development claimed most of his time. Thirty-four days or almost one-fourth of all field work were devoted to this activity. Office organization came next with 15 days, followed by subject-matter assistance, 14; promotion work, 12; finance and budget, 11; survey, 6; publicity, 4; and miscellaneous activities, 32 days. Miscellaneous work can not be wholly eliminated but probably can be further reduced.

#### FARM ECONOMICS AND MARKETING.

The agricultural depression which continued during 1921 tended to keep the minds of farmers alive to the desirability of developing if possible less expensive distributing and marketing methods (Fig. 7) and so retain for themselves as large a share as possible of the ultimate selling price of their products. During 1920 the county agents had devoted a large share of their time to assisting in promoting a better understanding of the principles of cooperative marketing and advising as to the conditions necessary to success. So absorbed were the farmers in the effect of rapidly falling prices of farm products that it was exceedingly difficult to get a hearing in regard to improved production methods.

Under these conditions it is not strange that it was difficult to maintain interest in demonstration work. The drop in demonstration work was compensated in organization and marketing work. The general business conditions which prevailed in 1920 were rather intensified in 1921. That the farmer's attention is returning to a fundamentally sound basis of economic production is strongly indicated by the increased attendance at demonstration meetings. Not only was the tremendous slump of 1920 in this respect overcome but the average attendance reached the highest point yet attained. The farmer in common with all other classes in time of discouragement and distress is quick to turn to a promising short cut to prosperity. It is his fortunate attribute, however, to quickly resume



business as usual and then to help himself and others. While still hoping for good things to come from better business organization, the farmer is applying the simple but effective remedies of lower production cost and higher quality of output through sound extension projects.

The reports show a small reduction of agents organizing cooperative marketing in 1921, and that whatever may be said of economic conditions affecting agriculture, both the farmer's and county agent's minds are returning to normal. The number of county agents assisting in cooperative marketing promotion decreased from 798 in 1920 to 723 in 1921, or to about 60 per cent of the total number of agents employed. The number of new enterprises organized decreased from 1,988 in 1920 to 1,701 in 1921. There has been an average of about five new cooperative enterprises in each county as a result of county agent work the past two years. The success or



FIG. 7.—A curb market organized as a result of suggestions by a county agent.

failure of these newly formed cooperative associations will mean much for the future cooperative movement in America. Some of them may have been unwarranted, others may be unsoundly organized, and some may be inefficiently managed, but such defects are not peculiar to cooperative organizations. The county agents in the proper exercise of their function as extension agents have given great impetus to cooperative buying and selling. Discounting a percentage of failure due to the causes enumerated, the movement toward better marketing methods is well started. Perhaps time should be given these new business organizations to find themselves, and also to demonstrate the efficiency of cooperative effort in comparison with former methods, before much additional organization work is done. The county agent should remember that negative results in organization demonstrations are even more disastrous than in production demonstrations. In the latter the farmer only fails to see how he might increase his future profits, while in the former he suffers an actual present loss.

The county agent's relation to cooperative marketing is fully described in a previous report <sup>5</sup> and reenforced in the memorandum of understanding between the American Farm Bureau Federation and the States Relations Service.

The following from a report from Ada County, Idaho, is an example of effective coordination of production and marketing in extension work:

In addition to demonstration in poultry management, including culling, housing, and feeding, attention was given to the condition of poultry markets. The production of eggs was restricted because the Boise Valley offered a limited market. No facilities or plan existed permitting producers to reach outside markets advantageously. An outgrowth of a study of marketing conditions by the county agent and poultry specialist led to a survey of the volume of production not only in Ada County but in all counties in Boise Valley, including two in Oregon. An investigation of cooperative marketing associations already in operation was also made. After all information was submitted to farmers they decided it would be of advantage to effect a connection with the Western Oregon Poultry Producers' Association through the organization of a zone including all the counties in the Boise Valley, and steps were taken to find contacts and secure 100,000 hens as the minimum basis. This goal was realized and the cooperative plan of marketing eggs was put into operation in the Boise Valley.

A county agent leader in a New England State sums up the situation with regard to dairying in his State in the following significant manner:

With all our extension efforts, with all the pressure brought to bear from every direction, the fact remains that the cows in the State are no better than they were 10 to 20 years ago. Personally, I do not think they ever will be any better until a dependable market is established. At the present time the market is in a chaotic condition, many farmers being cut off with less than 30 days' notice and thousands having their milk check cut on account of the surplus milk agreement, under which the surplus milk does not net the producers butter-fat prices, the skim milk being a liability. The problem, so far as building the dairy industry is concerned, is to get a dependable market. This is not an impossible goal, for it does not call for a remunerative price at all times. It calls simply for such an organization of our marketing machinery that the farmers can start in to build a herd with a reasonable assurance of being able to dispose of the products of that herd all the time through the following 20 or 30 years at such prices as the general demand the country over justifies. That's a problem upon the correct solution of which depends the future of agriculture in this State.

#### BOYS' AND GIRLS' CLUB WORK BY COUNTY AGENTS.

Club work, or extension work with young people, continues to be an important phase of county extension work. With the emphasis on a common or united program of extension which has been stressed for the past three years, there has been a marked increase of interest in club work. This is illustrated by a comparison of the work for 1920 and 1921 in the table below:

*Boys' and girls club work by county agents, 1920-21.*

	1920	1921
Agents doing club work.....	766	936
Boys' and girls' clubs organized.....	5,730	6,176
Enrollment in clubs.....	72,848	78,764
Club members finishing projects.....	39,665	45,433
Percentage of members enrolled completing work.....	54	55

<sup>5</sup> U. S. Dept. Agr. Circ. 179.



The following quotation from the annual report of County Agent M. L. Howell, of Henry County, Ohio, gives an illustration of good club work by a county agent not having a resident assistant:

The county agent arranged with the State club specialists for a meeting early in the year. The presidents of the community committees selected club leaders in cooperation with the project committee at the community program-making meeting. These township club project leaders met with the county agent and State leader and organized a county club committee. The township club leader secured an enrollment of boys and girls in the club and so far as possible supervised the following up of the clubs and the club activities. Perhaps no force in the county has been as productive of good in modifying home and farm practice as the boys' and girls' club work.



FIG. 8.—A pig club boy.

In this county the county agent organized during the year 9 clubs dealing with live-stock production (Fig. 8) with a membership of 142, 126 of which completed the work. He organized 3 clubs in relation to garden and home-making with an enrollment of 38, the entire number of which completed the work. The county agent, himself, devoted  $29\frac{1}{2}$  days of his field work to club work. He was assisted for five days during the year by the specialist from the college. The community committeemen devoted 21 days' time to the work. Two hundred and thirty exhibits were made at the fairs and five demonstrations were held at club members' homes which were attended by the county agent and at which there was an attendance of 560 people. This was a very efficient piece of work with a minimum of expenditure of time by the county agent.

**HOME DEMONSTRATION WORK BY COUNTY AGENTS.**

The number of county agents carrying on some demonstration work in relation to the home (Fig. 9) increased from 466 in 1920 to 604 in 1921, or 30 per cent. As practically the same number of county agents were employed in the two years in the same counties, this is a most gratifying indication of a growing sentiment among the country people in favor of home demonstration work. Home demonstration work as conducted by county agents is likely to call for increased expenditure of money by farmers, and projects of this character might naturally be unfavorably considered during hard times. It is rather surprising, therefore, to find that with the single exception of lighting systems, there was a considerable increase in these home comfort projects during 1921. The number of water supply systems planned and installed increased from 603 in 1920 to 662 in 1921.

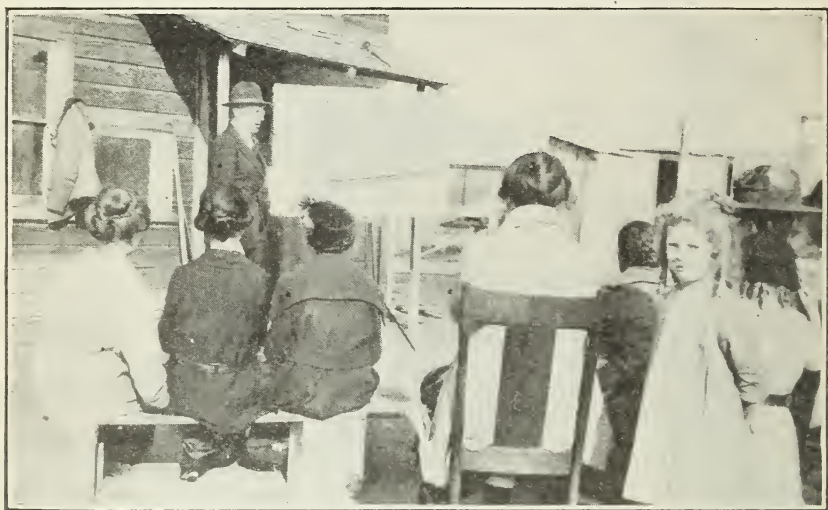


FIG. 9.—The county agent working with a group of farm women.

The number of sewage disposal systems planned and installed increased from 717 to 1,040. The number of lighting systems planned and installed showed a decrease from 1,474 to 572. Farm homes constructed or remodeled according to plans furnished by the county agent increased from 485 to 560. Home grounds improved according to plans furnished by the agent increased from 942 to 1,153. Homes in which labor-saving machinery was introduced increased from 1,521 to 2,269. Household laborers supplied through the county agent increased from 1,794 to 2,442, and homes modifying the practice relative to gardening from 1,851 to 8,973.

The following quotation from the report of the county agent leader of Washington State is illustrative of the great variety of home demonstration work arranged for by county agents in the counties not having home demonstration agents. The success of the work under these conditions is due to the organized support of the farm



women and the sympathetic and active cooperation of the State home demonstration leader and various home economics specialists:

Nine counties without home demonstration agents report on dressmaking: 1,264 garments remodeled; 30 foundation patterns made; 51 demonstration meetings held with an attendance of 1,416; 1,278 dress forms completed as a result of the specialist training leaders and leaders in turn taking this information out to their respective communities. Thirteen counties carried on club work in sewing with an enrollment of 395 members.

The women in San Juan County first became interested in extension work for women in 1920 when the stenographer in the county agent's office, a graduate of the home economics department of the State College, held a sewing school and organized a club and taught some members the making of dress forms. Since that time 10 to 12 of these women have held meetings every two weeks to carry on their sewing work, and have made 20 dress forms. With the assistance of the home life project leaders in the county and the State home demonstration agent, 52 day sewing schools were held with an attendance of 113. Five dress forms were made at these schools; 22 foundation patterns were made, and the leaders learned short cuts in sewing and fancy stitches. Five counties carried on schools in millinery, holding 17 meetings with an attendance of 352, and 92 hats were made. This work is especially popular with farm women and they feel that any assistance which they can get which will assist them to make their own clothes is a real saving.

Thirteen counties carried on work in food and nutrition. Twenty-six nutrition classes were organized in ten counties without home demonstration agents. Requests came in for the organization of classes in six additional counties.

New work started in foods and nutrition since December, 1920, includes: Eleven surveys of weighing and measuring of 15,281 children, of which 7 per cent were found to be under weight. Twenty-five nutrition classes were organized with an enrollment of 475. Twenty of these classes were organized under the direction of local leaders. Eleven counties carried on the work involving 22 different communities.

A milk campaign was carried on in eight counties. The object is to decrease the percentage of under-weight children by increasing the consumption of milk. A special effort was made to reach sections outside of the city limits. The campaign was conducted under the direction of the county agent with the cooperation and assistance of the Farm Bureau, Public Health Service, Red Cross, Tuberculosis League, public schools, Parent Teachers' Association, and fraternal organizations.

Eleven cooking clubs were carried on in counties without club agents, with an enrollment of 136. Six demonstrations in meat cutting and curing were carried on in five counties with an attendance of 209, assisted by Doctor Anthony of the United States Department of Agriculture.

Twenty-one counties did some work in connection with home management; 57 demonstrations were conducted; 16 fireless cookers installed; 35 long-handled dust pans; 14 dish drainers; 24 pressure cookers; 19 mop drainers; 8 vacuum sweepers; 24 minor pieces of equipment were known to be definitely placed in homes as a result of these demonstrations; 13 testing circles were reported where equipment was inspected in 74 different homes; 13 demonstrations were given in making iceless refrigerators.

Twenty-four houses were remodeled according to specialists' plans; 14 made improvement of home grounds; 26 household libraries were supplied; 24 sewage systems were planned; labor-saving machinery was introduced in 246 homes; and advice given for the installation of 10 farm lighting plants. Thirty-seven meetings were reported with an attendance of 839.

#### EXAMPLES OF COUNTY AGENT WORK.

In the appendix on pages 38-40 will be found statistical tables giving a summary of the various lines of county agent work for the years 1920 and 1921. In the following pages are given in some detail a few concrete examples of county agent work. It is believed that these stories of accomplishment will better illustrate the organization and method of county agent work than will an elaboration of the statistics and general statements and conclusions based on them.



## FRUIT-TREE PRUNING CHANGED THROUGH DEMONSTRATION WORK.

In California the common practice has been to prune deciduous fruit trees very severely. As a result of careful experimenting, the State college of agriculture developed a system known as "long pruning" which has given better results. The advantages credited to long pruning were earlier bearing, less susceptibility to frost, and



FIG. 10.—Demonstration of long pruning versus short pruning of peaches in California.

increased quantity of fruit. Through the county agents, very carefully planned demonstrations were organized in 30 counties which have been under way for a period of three years.

In Kings County long-pruned trees over a period of three years yielded 100 pounds more fruit per tree than did the short-pruned ones. (Fig. 10.) Measurements also indicated that the long-pruned trees meant more stocky trunks than did the short-pruned ones.

In Placer County the increase due to long pruning alone was estimated at \$50,000 a year. In Tulare County one apricot orchard of 300 long-pruned trees yielded 52 tons of apricots and 300 short pruned yielded 13.6 tons of fruit accepted by the canneries.

In Fresno County one Alberta peach grower produced 30 tons of fruit in 1917; 35 tons in 1918. During the year 1918-19, assisted by the State college specialists in pomology and the county agent, he changed from the old standard system of short pruning to the long-pruning method. This year the grower reports a yield of 65 tons from the same orchard in 1919, 71 tons in 1920, and 112 tons in 1921.

Another grower in the same county reports 13 tons of peaches from 90 long-pruned trees and  $4\frac{1}{2}$  tons from 90 short-pruned trees. In Riverside and other counties less susceptibility to frost in the case of long-pruned trees has been noted, this being attributed to the higher sugar content in the sap of long-pruned trees.

In Orchard County the majority have been converted to the long-pruning system advocated by the college of agriculture. In Los Angeles and Riverside Counties 75 per cent of the deciduous trees are now pruned by the long system, the results of three years' effort on the part of the agricultural extension service.

The above data culled from the reports of the agents are a striking commentary on the value of the county agent system in helping to quickly extend a proven practice. Within three years from the time the long-pruning system was put out from the college as an extension project it had been extended practically to the entire State and generally accepted by orchardists as the better method. It is interesting in this connection also to note that in counties having a county agent it is reported that 85 per cent of those who copied the demonstration were successful, while in counties not having the services of a county agent only about 30 per cent were successful. Demonstrations were essentially the same in both counties as they were conducted by the college specialist in pomology, the only difference being that in counties having county agents the agent followed up the demonstrations and gave some individual advice and suggestion to the grower.

The State director of extension makes the following interesting comment on the value of this project to California orchardists:

It is interesting to speculate upon the probable minimum return already given by the new method of pruning. There is abundant testimony that the new system increased the yield from 25 to 50 per cent and many assert as high as 100 per cent. No one has been heard to claim that the increased yield was as low as 10 per cent, but, making our estimate upon the most conservative basis possible, we might infer that we are safe in assuming that a 10 per cent increase in yield was positive. It is difficult to place a value upon the crop produced upon an acre of deciduous fruits during the year just past, but again using the most conservative figure thinkable, it might be safely stated that \$100 an acre, gross output, would be so low as to prevent any possible accusation of exaggeration. On this very conservative basis the system of long pruning used only on the known acreage gave an increased annual return to these growers of \$1,469,000, which, expressed in another way, may be stated as the annual income on an added valuation of \$24,000,000 to the productive capital of California orchards.

But the above demonstration and advisory areas are only a small percentage of those which are long pruned. Whole fruit districts have gone over to the long-pruning system. The method is now being used beyond any directly traceable spread of influence. It is rapidly becoming the common practice. The



division of pomology of the State college of agriculture estimates that half the area in the State is long pruned and that on the average it has increased the crop by one-third. The Bureau of Crop Estimates states that in 1921 the deciduous fruit crop of California had a farm value of \$47,545,000. If half of this crop was under the influence of long pruning, on the basis of the estimate of the division of pomology, we would conclude that the annual income from California orchards has been increased a little less than \$7,000,000, or an increase in the productive capital of California orchards of \$100,000,000. This, moreover, may be doubled within the next three years by the natural spread of influence.

The long-pruning project of California represents the product of combined research and extension achieved through the definite state-wide project for the economic improvement of agriculture.

#### DISTRIBUTION OF PICRIC ACID FOR USE IN LAND CLEARING.

In Minnesota and Wisconsin there are large areas of cut-over lands potentially of great agricultural value, but the cost of clearing these lands of stumps has been a barrier to rapid settlement. Through the distribution of picric acid, an explosive left over from the war, and distributed to farmers through the Bureau of Public Roads, extensive land-clearing work was carried on in a number of States. In Minnesota alone over 750,000 pounds of acid were used out of the 12,000,000 pounds available. This acid was distributed free to the farmer, he having to pay the cost of handling, freight, and similar charges, which approximated from 9 to 10½ cents per pound. The prompt and efficient manner in which this explosive was distributed is a fine example of cooperation between all parties concerned. First, the land-clearing section allotted the explosives to the various counties and laid down rules to be followed in handling orders. County agents and farmers followed the spirit and letter of the regulations. As a consequence there was a minimum of dissatisfaction. The first definite announcement regarding the explosive was made on July 1, 1921. A series of meetings held over the State commenced on July 15. On July 28 orders were pooled and the first car paid for; the last car of an allotment of 34 cars for Minnesota arrived on October 10. In connection with the use of the explosive, information was given in regard to methods of clearing land, including breaking of stone. Demonstrations were as follows: Nineteen "picric-acid week" meetings in 18 counties; 2 special meetings for county agents in cut-over counties; 12 demonstrations in St. Louis County; 15 demonstrations in Carleton, Pike, and Mille Lac Counties.

The county agent leader of Minnesota in his report says:

We feel that picric acid has been of great benefit to the State of Minnesota and has done a great deal to stimulate land clearing. The allotment to Minnesota was distributed to 3,511 farmers, averaging 220 pounds per farmer. It is estimated that this will clear 35,000 acres of land and save over \$70,000 in comparison with the cost of other explosives.

#### LAND CLEARING DEMONSTRATIONS IN BAYFIELD COUNTY, WIS.

The county agent collected statistics indicating that the average farmer had cleared about 1 acre per farm during the previous five-year period. A definite plan of land clearing was developed by the county agent. The county was divided into eight districts and a survey was made showing the number of farmers and the amount of land clearing per farm. All bankers and a number of farmers through the county were called together for the purpose of planning



a county-wide land clearing campaign (Fig. 11). Community committees were appointed; land clearing specialists from the land clearing department of the State were present and discussed what might be accomplished. As a result a land clearing specialist was hired by the county. An allotment was made to raise \$4,000 to finance the organization for a year. A drive was started to hold meetings in every community in the county. Farmers and town people were present when plans for conducting the campaign were explained. The membership fee for people not on farms was \$1, for farmers 25 cents. Each member present was given a "booster



FIG. 11.—A feature of a land clearing campaign in Wisconsin.

button" and also a "10-acre button" which read: "Clear Ten Acres in 1921." On April 25 there were 4,000 people gathered to see over 100 stumps blown out at a single shot. Land clearing demonstrations were held in every community in the county. Over 40 meetings were held with an attendance of over 1,200. Modern land clearing equipment was used and kept on hand. Dynamite and other explosives were purchased in carloads at considerable saving to farmers. During the year 250,000 pounds of dynamite, or 12 carloads, and 39,200 pounds of picric acid, or 2 carloads, were secured with the cooperation of the manager of the land clearing department of the State. The saving through the cooperative purchase of these explosives alone amounted to \$12,500 and reached

1,900 farmers in the county. Over 5,000 acres of land were cleared as a result of this campaign.

#### **SHEEP BREEDERS' ORGANIZATION DEVELOPS INTEREST IN WOOL PRODUCTION.**

Each year hundreds of associations of producers are organized by county agents; many of these are in relation to live-stock production. About all that ever gets into the annual report of the agent is that the association has been organized. After the agent has presented the advantages of such an organization to the farmers and they have accepted the plan and elected their officers the work of the association is carried forward with only incidental assistance from the agent, and so the cumulative results of the agent's work rarely find place in his annual reports. The following with regard to the development of a district sheep breeders' association organized in Crawfordsville, Ind., in 1918, is indicative of the great spread of influence that is constantly growing out of county agent work: Following the organization of this association in 1918, an inspection tour was held. Six automobiles held all the people who were interested in sheep husbandry at that time. In 1921 a second inspection tour was held under the auspices of the sheep breeders' association, when 38 automobiles were required to accommodate the people desiring to make the trip because of their interest in the project. In 1918, 10,000 pounds of wool were produced in the county. In 1921 the association alone pooled more than six carloads.

#### **ERADICATION OF TUBERCULOSIS.**

Reenforcing the campaign of the United States Department of Agriculture and the State departments of agriculture, much attention has been given during the past year to the eradication of tuberculosis among cattle. This is indicated by a comparison of the work of agents in the past two years. In 1920, through the influence of the agent, 232,700 animals were tested for tuberculosis, while in 1921 the number increased to 935,771. The work in Woodford County, Ill., is illustrative. The county agent interested the farmers in putting on a campaign for the systematic eradication of tuberculosis. The county farm bureau cooperated with the United States Department of Agriculture and the State department of agriculture in the employment of a county veterinarian to handle the work. One hundred and eleven herds aggregating 1,465 head of cattle were tested. Of these 92 reacted to the test and were condemned and slaughtered.

#### **SMALL IRRIGATION TRACTS AS INSURANCE AGAINST CROP FAILURE.**

For the past five years a considerable area in Montana, North Dakota, and some adjoining States has suffered severely from drought and county agents have given cooperation in the distribution of seed-loan funds voted by Congress and the States to enable farmers to continue operations. Manifestly agriculture can not be considered on a sound basis if it must depend permanently on such loans. The Montana State College of Agriculture, during 1921, developed special plans for irrigation work under these conditions. The irrigation specialist of the college visited the counties involved and a



series of meetings were held with the community committeemen at which it was decided to limit demonstrations to dry land areas only. Such demonstrations were to cover the construction of storage reservoirs, diversion dams, dikes, pumping plants, and any other type of irrigation development that might be confined to individual farms or to smaller sized areas of irrigable land scattered throughout these counties. (Fig. 12.) Arrangements were made to follow up the work of the extension specialists in order that preliminary surveys might be made and assistance given in the development of small irrigation tracts in the respective counties. Fifty-six irrigation systems were at once planned and adopted in eight counties, involving a total acreage of 23,871. These were considered as demonstration areas illustrating to other farmers in the communities and



FIG. 12.—The county agent helps to plan a small farm irrigation system.

counties involved how they might apply this to their own holdings. In speaking of this type of work, the county agent emphasized its low cost to the farmer outside of his own labor and the development of the small irrigation tract as insurance against crop failure. It also furnished him feed for his stock, a good garden, and on some of the larger areas provided a cash income from the crops produced during the year.

#### GRASSHOPPER WAR IN COLORADO.

On the evening of June 23, County Agent Hale, of El Paso County, Colo., was called on the telephone and informed of a grasshopper invasion in the southeast corner of that county. On the 24th he met a committee of farmers from that part of the county, and the county commissioners, for the purpose of securing financial aid in fighting the insect invasion. Two truck loads of supplies to be



used in preparing poison bran mash were sent out to the infested area that day. Mr. Hale accompanied the first shipment of the poison materials and took charge of the organization of the preliminary campaign, he being the first agent to reach the infested area.

On the same date invasions of the hoppers were reported in the northeast corner of Pueblo, the southwest corner of Lincoln, and the northwest corner of Crowley County. These outbreaks were reported to the agents in Pueblo and Lincoln Counties. Immediately the agents in the three counties, together with groups of farmers, met the county commissioners of their respective counties, who authorized an expenditure of \$200 in each case with which to start the fight. A report of the outbreak was made to the State entomologist. An investigation showed the hoppers originated in the adobe flats of Crowley County and were moving northward in a fan-shaped formation over a front of approximately 40 miles. After a survey was made by the deputy State entomologist, the cost of eradicating or controlling the outbreak was estimated at \$10,000.

On June 30 a meeting of the governor of the State, county commissioners of the four counties, three county agents, the State entomologist, and the deputy State entomologist was held at Colorado Springs and plans were made for starting a campaign on a larger scale than had been previously attempted. The governor pledged \$3,500 of State funds and the county commissioners of each county pledged one-fourth of the remaining \$6,500. The money was placed in a bank at Pueblo at the disposal of the deputy State entomologist, who was given charge of the organization of the campaign. Eight camps were established on the 40-mile line with a mixing foreman and nine mixers at each camp to prepare the poison mash. Two scouts were appointed to go over that section of the line in charge of each camp and to report to the foreman the movements of the pest army.

Ten to 25 men worked from each camp to distribute mash, beginning at daybreak each morning. One line foreman and two subforemen were appointed to watch operations along the entire front and to keep the deputy State entomologist informed. The latter, in addition to directing the activities of the hopper fighters, purchased necessary supplies for carrying on the work and arranged for their delivery to each camp.

The outbreak occurred in a dry land section 25 to 50 miles from the nearest railroad points, making it necessary to haul supplies by truck to the line of action. Farmers in the infested area donated the use of their trucks and their time and hauled all of the supplies from Fowler, the nearest railroad point. A total of 150,000 pounds of bran, 7,500 pounds of Paris green and white arsenic, 3,000 gallons of molasses, 2,000 dozen lemons and oranges, and 15 gallons of banana oil were used during the campaign. The Paris green was located by County Agent Sawhill in a wrecked freight car in the yards at Pueblo following the flood of June 3, and was purchased at 15 cents per pound. By July 9 the hopper army had been completely defeated and the farmers returned to their homes after supplies of materials had been stored at strategic points in the district to be used in case of a second outbreak. It was possible to successfully fight the hoppers only because of the prompt and efficient co-operative action of State and county officials, the office of the State entomologist, the county agents, and the people of the four counties.

A NEW JERSEY COUNTY AGENT SOLVES TRANSPORTATION PROBLEM.

In almost every rural community one will hear complaints of lack of consideration of the needs of the people in the matter of local railway schedules. These complaints rarely get beyond the local station agent. No real effort is made to get together on the part of the shippers and the transportation management, and gradually there develops suspicion, discontent, and hostility. The following story shows how one agent helped correct a typical local transportation difficulty:

A farmer in Dorothy, N. J., could throw a stone from his pickle patch to the railroad station, yet he had to truck his produce 10 miles over a rough road to Landisville, the nearest shipping point.

Farmers at Milmay were trucking their produce 8 miles to Landisville when their station was not over a mile away. The Richland farmers were hauling their produce 4 or 5 miles to Landisville when the Richland station was only about a mile away, and the Folsom farmers, half a mile away, were hauling 2 or 3 miles to a station on another railroad.

County Agent Eldred in Atlantic County frequently heard complaints from farmers throughout the section about the poor transportation facilities and decided to see what could be done to improve conditions. First, he took it up with the transportation specialist for the State department of agriculture. After getting the facts they then took the matter up with the railroad officials at "headquarters," who promised to cooperate by meeting the farmers. Forty interested farmers and two officials of the Philadelphia & Reading Railway Co. met at Richland, a local shipping point. Individual farmers were called upon by the county agent to state their transportation difficulties. Several farmers had been compelled to buy expensive trucks to transport their produce.

It was disclosed that several farmers had sold their farms, while others had reduced their production, growing only enough to meet their needs, due to lack of transportation facilities. The farmers brought out that they could easily double the amount produced next season if the transportation situation could be handled. One of the railroad officials frankly said: "I quickly realized that these farmers were in earnest and needed help."

At the second meeting, arranged for a few days later, more than 100 farmers were present to listen to what the railroads might have to offer after they had considered the situation. The railroads agreed to carry freight on local passenger trains that would connect with fast freight at a junction. Service started immediately and two carloads of produce were shipped the first day. The service was of mutual benefit to all members of the community and to the railroads. Business gradually increased during the season, and the railroad people are as much pleased over the matter as the farmers.

SAVING FARMERS A DOLLAR A DAY ON DAIRY COW RATIONS.

In New Hampshire, county agents conducted a series of dairy feeding schools in six of the counties. In all, 26 such schools were held during the spring months and 7 more were planned. The interest and attendance in these schools were reported to have been very

good. In carrying out these schools lecturing and informal talks were practically eliminated and the dairymen were seated at tables, and with pencil and paper figured out for themselves the composition of various rations and computed costs. That the results were worth while is indicated by the statement of one man at Hooksett, who reported a saving of \$1 a day, while another who attended the school at Warner wrote the county agent that he is now saving \$36 a month as a result of feeding a ration that he figured out while attending a feeding school. The discussion provoked by the farmers figuring these rations gives a better understanding of the value and cost of the various feeds available than any amount of lecturing could possibly accomplish.

#### LANDLORD AND TENANT GETTING TOGETHER.

In any business undertaking a frank understanding of the points of view entertained by the various parties involved is always helpful in avoiding possible misunderstanding. This is especially true in the relation between landlord and tenant.

Arthur Lumbrick, county agent in Vermillion County, Ill., held a series of meetings which have gone far toward bringing about a mutual understanding between the landlord and the tenant as well as improving leasing contracts. First, a meeting of the tenants was held, which was followed by a meeting of the landlords. A joint committee was appointed which conferred in regard to the subjects brought out at the discussions of the two groups. This joint committee consisted of three landlords and three tenants, which had about six weeks in which to perfect its report. This report was referred to a special committee of the county farm bureau, by which it was adopted. The main subjects covered by the joint report are:

- (1) Cooperative farm business planning.
- (2) Cooperative fertilizing.
- (3) Longer tenures and less shifting.
- (4) Less bidding of one tenant for a farm "built up" by another.
- (5) Promotion of live-stock farming by stock share leasing.
- (6) Adequate building equipment for tenant's home and type of farming.
- (7) Better care of premises by tenants.
- (8) Roughages to be fed and returned to the land.
- (9) Extension of legume area to 20 or 25 per cent of cultivated area.
- (10) Adoption of the Illinois system of permanent agriculture.
- (11) Permanent bureau committee on land tenure.
- (12) A landlord-tenant demonstration farm tour this summer.

Some of the above goals can be arrived at in the near future, while others will be more or less a part of a permanent program. It looks like a long step in the right direction. Similar meetings were held in other counties in Iowa and Illinois.

#### PLAY AS A MEANS OF DEVELOPING CONFIDENCE.

Playing together often brings out those human qualities that are the real basis of confidence (Fig. 13). There can be no cooperation that is not based on confidence. In Montana, as in many Western States, the population is sparse and less stable than in the Middle Western or the Eastern States, and it is therefore more difficult to bring about "community" effort. For several years the Montana county agents have laid great stress on the community picnic as a



means of getting people acquainted with one another, inspiring confidence, and establishing team work. During the year 22 counties held 139 community picnics with an attendance of over 29,000. In speaking of these County Agent Leader Wilson says:

At first attendance was somewhat small and included mostly members, but during the past year not only members but nonmembers as well have attended, so that most of the farm men, women, and children have taken part in picnics, which can not be overemphasized as a medium of bringing people together and making them better acquainted with one another. The picnic has been the fore-runner of organized project work in the communities. It establishes community interest and a community consciousness that is so essential as the basis of other community activities. Experience in Montana points out the necessity for some kind of social activity to break the crust of isolation and lack of social contact. The organization, management, and arrangement for picnics, dinners, and recreational stunts has been in charge almost wholly of leaders in the communities selected for this purpose. The general plan has been for county extension workers to meet with the community chairmen and a small group of leaders,



FIG. 13.—Play as a means of developing confidence, the basis of cooperation.

at which all arrangements were planned in detail and written out. The chairman assigned particular duties to individuals and appointed committees to choose and lay out picnic grounds, to arrange a dinner, provide sports, etc. This was all the responsibility that the county extension workers had to take in the arrangements. The community picnic is now looked upon as a permanent feature of county extension work.

#### **A COUNTY CHANGES FROM SPRING TO WINTER WHEAT AS A RESULT OF DEMONSTRATION WORK.**

For the past three years the county agent in Douglas County, Wash., has been cooperating with the experiment station in conducting demonstrations comparing spring wheat and winter wheat. Before the beginning of these demonstrations practically all of the wheat raised in the county was of spring varieties. The demonstrations carried on in the county showed a yield of more than 15 bushels per acre in favor of winter wheat. The results of two years' work

are brought definitely to the attention of the farmers in each community by means of well-arranged demonstrations. Widespread interest developed in the results of these demonstrations. Arrangements were made with the college specialists to have a field inspection, and more than 12,000 acres were inspected during the growing season. Through cooperation with warehousemen arrangements were made for the special storage and distribution of high-grade seed (Fig. 14). As a



FIG. 14.—Introduction of improved seed sometimes produces results like this.

result of these demonstrations, in the fall of 1921 more than 100,000 acres, or 80 per cent, of the land involved in wheat culture in the county, were seeded to the approved winter varieties, and the agricultural practice of the county was almost completely revolutionized through these demonstrations.

#### CONCLUSION.

As pointed out in this circular, the development period in county agricultural agent work in the Northern and Western States may be said to have closed. In five States only is there still a small development problem, viz, in Missouri, Kansas, Nebraska, North Dakota, and South Dakota. The field has been covered, the work accepted by the colleges and the farmers. In summarizing the record of this period, the following are its contributions to the developing extension service:

It has furnished the State college of agriculture and the United States Department of Agriculture with a trained resident leader in the counties, representing these public institutions in all their relations with the people and functioning as their county director of extension.



It has given to farm families a recognized and easily available means of approach to public institutions interested in rural progress.

It has established a new working relation between the people and the Government, breaking down prejudice and misunderstanding and helping the institutions to get the common touch and the people to understand, appreciate, and use their agencies of public service.

It has, through the development of community programs of work and local committees, awakened a community consciousness that is the foundation of community effort and progress.

It has broken down the over-individualism of the country people and through simple demonstrations made evident the necessity of united action to secure results.

It has established the ideal of county, State, and national organizations of farmers for counsel and discussion.

It has given the farmer a new appreciation of the value of trained, paid leadership in carrying out his collective undertakings.

It has established the value of the demonstration method of teaching.

It has demonstrated the interrelation of farm enterprises and the need of their coordination as part of a farm management scheme as related to community, soil, climate, labor, distribution, and marketing conditions.

It has developed efficient methods of farm, home, and community analysis as a basis of program development.

It has provided a commonly accepted system of field and office records perpetuating the value of demonstration work.

It has established in the county extension service an effective instrument for carrying on cooperative extension work.

It has professionalized the county agent's position, crystallized its ideals of high-standard qualifications and spirit of service.

It has awakened the farmer's business sense and demonstrated the value of specialization, standardization of product, commodity grouping, and business cooperation.

It has developed in a sense social values—the home comfortable and the home beautiful as a goal of rural culture.



## APPENDIX.

### DATA FROM THE ANNUAL REPORTS OF COUNTY AGENTS, 1920-1921.

In the following tables are summarized statistical data from the annual reports of county agents for the years 1920 and 1921. During these two years the number of county agents in the Northern and Western States remained practically the same so that comparison of the work of the two successive years can for the first time be made. The differences in the results are due to the emphasis placed on the project rather than the difference in the number of agents employed or material change in type of agriculture of counties involved. With cumulative data of this kind for several years, it would be possible to measure the progress of demonstration work and extension projects. Already in individual counties such tendencies are apparent. In some counties in New York lime demonstration work showed an increase from year to year and then a gradual decline and final extinguishment from the county program of work, as the use of lime had become so common as to no longer need demonstration. The same is true of oat-smut control demonstrations in several counties in Illinois, and seed-corn selection in some counties in Iowa, or rodent control in various counties in several Western States.

These data constitute the best evidence of progress in extension projects and give assurance that demonstration teaching is effective. Business and seasonal conditions will always influence the kind of work in a particular year to some extent, and State, regional, and national tendencies can not be expected to show until practically the whole territory has been covered by agents over a period of 10 or more years, and then only if data are secured on a uniform basis. Frequent changes in reporting methods or forms are to be depreciated, as they lessen greatly the value of statistics already accumulated and their intelligent study and use.

#### *Some results of county agent work, 1920-1921.*

##### CORN.

Lines of work.	1920	1921
Farmers selecting seed corn.....	113,842	107,853
Bushels seed corn selected.....	752,569	703,740
Farmers testing seed corn for germination.....	59,510	51,731
Bushels seed corn tested for germination.....	273,376	202,807
Acres planted with tested seed.....	1,602,429	1,294,164
Farms on which corn growing was introduced or farm practice relative to corn culture modified.....	16,687	15,180
Acres involved.....	283,105	215,197

##### WHEAT, OATS, BARLEY, AND RYE.

Farmers treating seed wheat for smut.....	35,275	40,597
Bushels seed wheat treated for smut.....	2,405,095	2,423,264
Farms on which wheat growing was introduced or farm practice relative to wheat culture modified.....	43,446	78,396
Acres involved.....	851,984	607,923
Farmers treating seed oats for smut.....	40,660	51,654
Bushels seed oats treated for smut.....	1,197,407	1,123,211
Acres oats sown with treated seed.....	599,147	697,308
Farms on which oat growing was introduced or farm practice relative to oat culture modified.....	11,549	7,956
Acres involved.....	130,398	113,736
Farms on which barley growing was introduced or farm practice relative to barley culture modified.....	2,450	1,971
Acres involved.....	109,273	74,107
Farms on which rye growing was introduced or farm practice relative to rye culture modified.....	5,595	4,779
Acres involved.....	86,688	92,870

Some results of county agent work, 1920-1921—Continued.

BEANS AND POTATOES.

Lines of work.	1920	1921
Farms on which bean growing was introduced or farm practice relative to bean culture modified.....	3, 039	2, 304
Acres involved.....	29, 571	30, 926
Farmers treating seed potatoes for disease.....	36, 018	40, 352
Acres involved.....	142, 704	261, 023
Farmers spraying potatoes for disease.....	20, 282	29, 812
Acres involved.....	66, 089	120, 064
Other farms on which potato growing was introduced or farm practice relative to potato culture modified.....	14, 873	17, 187
Acres involved.....	80, 330	65, 503

LEGUMES, OTHER HAY, AND FORAGE.

Farms on which alfalfa growing was introduced or farm practice relative to alfalfa culture modified.....	12, 795	15, 800
Acres involved.....	158, 435	120, 514
Farms on which sweet clover growing was introduced or farm practice relative to sweet-clover culture modified.....	6, 675	11, 833
Acres involved.....	89, 221	139, 561
Farms on which red, alsike, or white clover was introduced or farm practice relative to clover culture modified.....	10, 945	13, 959
Acres involved.....	99, 723	163, 846
Farms on which soy-bean growing was introduced or soy-bean culture modified.....	14, 921	14, 001
Acres of soy beans involved.....	104, 446	132, 116
Farms on which sorghum, kafir, or feterita growing was introduced or their culture modified.....	3, 169	1, 968
Acres of sorghum, kafir, and feterita involved.....	68, 195	27, 751

SOILS: DRAINAGE, IRRIGATION, AND FERTILITY.

Drainage systems planned and adopted.....	1, 737	1, 856
Acres involved in such drainage and systems.....	470, 239	389, 879
Irrigation systems planned and adopted.....	416	361
Acres involved in such irrigation systems.....	1, 365, 141	1, 435, 478
Farmers who used commercial fertilizers.....	111, 690	110, 347
Tons of commercial fertilizer used.....	286, 275	268, 777
Acres of clover and other legumes plowed under for green manure.....	189, 972	280, 633
Farms on which soil was tested for acidity.....	19, 237	22, 093
Farms on which lime or limestone was used.....	24, 157	23, 421
Tons of lime or limestone included.....	541, 374	360, 173

RODENT AND PEST CONTROL.

Farms on which rodent-control methods were followed.....	77, 795	68, 244
Acres involved in rodent control.....	15, 942, 460	13, 508, 452
Pounds of poisoned bait involved in rodent control.....	2, 129, 242	1, 136, 949
Farms on which insect-control methods were followed.....	74, 205	73, 665
Acres involved in insect control.....	3, 394, 368	2, 242, 492
Pounds of poisoned bait involved in insect control.....	8, 873, 598	5, 915, 716

FRUIT.

Farms on which orchards were planted.....	4, 331	3, 011
Acres involved in orchards.....	22, 723	22, 584
Farms on which fruit trees were pruned.....	13, 795	22, 437
Acres involved in pruning.....	121, 137	256, 685
Farms on which fruit trees were sprayed.....	20, 723	27, 548
Acres involved in spraying work.....	143, 986	277, 474
Farms on which bush fruits were planted or culture modified.....	1, 125	4, 581
Number of acres involved in bush fruit work.....	2, 489	24, 047

FARM ECONOMICS AND MARKETING WORK.

Farm account books distributed.....	71, 642	51, 883
Farmers keeping such accounts through the year.....	19, 829	18, 448
Farmers assisted in summarizing and interpreting their accounts.....	11, 007	8, 454
Farmers making changes in their business as result of keeping accounts.....	3, 213	2, 972

*Some results of county agent work, 1920-1921—Continued.*

## FARM ECONOMICS AND MARKETING WORK—Continued.

Lines of work.	1920	1921
Other farmers adopting cropping, live stock, or complete farming systems according to recommendations.....	7,725	10,964
Farms on which buildings other than homes were constructed or remodeled according to plans furnished.....	4,119	6,590
Farm leases drawn or modified.....	1,232	2,003
Farm laborers supplied.....	101,400	83,983
Farmers assisted in securing machinery to economize labor.....	6,441	4,995
Farm loan associations organized.....	144	207
Other credit associations organized.....	76	45
Farmers involved in farm loan and other credit associations.....	7,586	6,015
Number of cooperative buying and selling associations in the county.....	7,486	8,977
Number of associations involved in cooperative buying and selling that the agent or his predecessors have assisted in forming.....	4,843	4,383
Number of farmers assisted by county agent in buying or selling through other than cooperative associations.....	117,477	123,035
Number of cooperative associations which the county agent has helped form during year.....	1,988	1,701
Number of members of such cooperative associations.....	148,157	227,424
Value of business done through such associations.....	39,562,964	40,177,127
Savings effected over usual method of doing business.....	2,899,764	3,475,709

## FARM-HOME PROJECTS.

Water supply systems planned and installed.....	603	662
Sewage disposal systems planned and installed.....	717	1,040
Lighting systems planned and installed.....	1,474	572
Farm homes constructed or remodeled according to plans furnished.....	485	560
Home grounds improved according to plans furnished.....	942	1,153
Homes in which labor-saving machinery was introduced.....	1,521	2,269
Household laborers supplied through agent or farm bureau.....	1,794	2,442
Home modifying practice relative to gardening.....	1,851	8,973

## LIVE STOCK.

Registered stallions and mares secured.....	485	435
Registered bulls secured {dairy.....	4,438	4,668
Registered bulls secured {beef.....	3,869	3,825
Registered cows secured {dairy.....	11,160	8,516
Registered cows secured {beef.....	5,613	3,406
High-grade cows secured {dairy.....	15,297	13,403
High-grade cows secured {beef.....	3,747	3,186
Registered rams secured.....	2,456	1,742
Registered boars secured.....	7,842	9,741
Cow-testing associations organized.....	252	289
Number of members in above associations.....	13,609	12,695
Cows tested or under test in 1920 for milk production in all such associations organized in 1920 or previously.....	183,269	184,813
Cows tested for milk production by individuals.....	30,306	38,425
Cows discarded as result of tests, association and individuals.....	12,714	14,120
Farmers assisted in calculating balanced rations, all animals.....	25,585	28,038
Silos erected.....	9,587	3,799
Farms on which poultry practice was modified.....	59,286	103,302
Animals tested for tuberculosis.....	232,700	935,771
Animals treated for blackleg.....	287,694	303,206
Hogs inoculated against cholera.....	412,811	515,272
Hogs treated for hemorrhagic septicemia.....	62,473	47,464
Farmers assisted in controlling necrobacillosis.....	2,668	2,683
Farmers assisted in controlling contagious abortion.....	2,413	3,758
Farms on which beekeeping was introduced or the handling of bees modified.....	3,379	4,833
Number of hives involved in beekeeping.....	29,358	47,840



## MEMORANDUM OF UNDERSTANDING.

Between the executive committee of the American Farm Bureau Federation and the States Relations Service, United States Department of Agriculture, relative to farm bureaus and the extension service.

Since questions have arisen regarding the relations of the farm bureaus to the cooperative extension service of the State agricultural colleges and the United States Department of Agriculture, it has seemed desirable for the national organizations representing the farm bureaus and the extension service to formulate and recommend to their State and county organizations the following general outline of a policy which may govern the relations of the farm bureaus and the extension service in their cooperative enterprises.

### THE FARM BUREAU.

The county farm bureau is a voluntary organization of people engaged in farming and has for its object the promotion of the economic and social interests of agriculture. It is nonsecret, nonpartisan, and nonsectarian, and it is its policy as an organization not to engage in commercial activities. It is open to both men and women on equal terms. While it may engage in other activities, it is greatly interested in the promotion of the cooperative extension work in agriculture and home economics organized by the State agricultural colleges and the United States Department of Agriculture under the Smith-Lever Extension Act and related Federal and State laws. It may, therefore, cooperate with the extension service of the State agricultural college and the department by contributing of its funds toward the maintenance of one or more extension agents in the county and joining in the work of the extension service through its committees and otherwise under agreements with the State extension director. The farm bureau is organized with a president, secretary, treasurer, and executive committee who will themselves or through other representatives of the farm bureau solicit memberships, collect dues, handle its funds, and in general manage its affairs.

### THE EXTENSION SERVICE.

The cooperative extension service of the State agricultural college and the United States Department of Agriculture is organized as a division of the college to conduct extension work defined in the Smith-Lever Extension Act, as follows:

"SEC. 2. That cooperative agricultural extension work shall consist of the giving of instruction and practical demonstrations in agriculture and home economics to persons not attending or resident in said colleges in the several communities, and imparting to such persons information on said subjects through field demonstrations, publications, and otherwise, and this work shall be carried on in such manner as may be mutually agreed upon by the Secretary of Agriculture and the State agricultural college or colleges receiving the benefits of this act."

This extension work will deal not only with agricultural production, but also with economic problems, including marketing and cooperative associations, and with the interests of the farm home and the rural community. The extension service, including the county agent, is as much interested in the marketing, distribution, and utilization of farm products as it is in production, and it may properly give information and help in all of these lines.

The extension service in each State is under the administrative management of an extension director, who is the joint representative of the college and the department. Under the director are the State agents or leaders, the extension specialists, and the county agricultural agents, home demonstration agents, and club agents or leaders. The extension directors are authorized to enter into cooperative agreements with county officials and farm bureaus or like organizations with reference to financial support for the maintenance of extension work in the county and the plans for the use of the cooperative funds in the extension work within the county.

**BASIS OF COOPERATION.**

The general basis of cooperation between the county farm bureau and the extension service will be as follows:

The county agricultural agents, home demonstration agents, and club agents cooperatively employed will be members of the extension service of the State agricultural college and under the administrative direction of the extension director and will carry on such lines of extension work as may be mutually agreed upon by representatives of the agricultural college and the farm bureaus or other like organizations.

Since these county extension agents are part of a public service, as defined in the Smith-Lever Act, and receive some part of their salary from public funds, they are to perform service for the benefit of all the farming people of the county, whether members of the farm bureaus or not, and are to confine their activities to such as are appropriate for public officials to perform under the terms of the Smith-Lever Act. The county agents will aid the farming people in a broad way with reference to problems of production, marketing, and formation of farm bureaus and other cooperative organizations but will not themselves organize farm bureaus or similar organizations, conduct membership campaigns, solicit memberships, receive dues, handle farm bureau funds, edit and manage the farm bureau publications, manage the business of the farm bureau, engage in commercial activities, or take part in other farm bureau activities which are outside their duties as extension agents.

The county agents and other extension agents will cooperate with the farm bureaus or other like organizations interested in extension work in the formulation of county and community plans of cooperative extension work. It will then be the duty of the county agents, under general direction of the extension director, to take charge of the carrying out of such plans and to cooperate with officers, committees, and members of the farm bureaus and with other organizations and residents of the county in the prompt and efficient execution of these plans.

**TERMINOLOGY.**

In order to do away as far as possible with the confusion now existing in the public mind regarding the organization and work of the farm bureau as related to the county agents and the extension service generally, it is recommended that hereafter, in publications and otherwise, the cooperative extension service shall be differentiated from the farm bureau work. That is, the farm bureau will have its relations with the extension service (consisting of the county agents, extension committees, demonstrations, etc.) as one of its departments. Other departments might be a publicity department which would prepare and publish a periodical (*Farm Bureau News*), press articles and notices, announcements of meetings, etc., department of relations with marketing, and other cooperative associations, etc.

The work which centers in the county agents would be designated as the cooperative extension service and the miscellaneous enterprises of the farm bureau as farm bureau work.

**FARM BUREAU FEDERATION.**

The county farm bureaus have their State and national (American) farm bureau federations, which are working on economic and legislative matters and are also promoting the extension service and agricultural education and research. These federations are, however, not directly connected with the extension service and do not enter into cooperative agreements with the State colleges and the Department of Agriculture involving the use of the federation funds and the employment of extension agents, and the college and the department are not responsible for the activities of the farm bureau federation. There is, however, much advisory consultation between representatives of the farm bureau federations and officers of the colleges and the department with reference to plans for advancing the agricultural interests of the States and the Nation.

(Signed)

J. R. HOWARD,  
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A. C. TRUE,  
*Director, States Relations Service.*





